BRUHAT BENGALURU MAHANAGARA PALIKE

YELAHANKA ZONE

NAME OF WORK : IMPROVEMENTS AND ASPHALTING TO ROADS AT MARUTHI NAGARA 3rd MAIN ROAD IN WARD NO.01 OF YELAHANKA SUB-DIVISION

Estimate Cost Rs. **20.00** **Lakhs**

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
1	KSRB 2-1 1 Earthwork in surface excavation in **ordinary soil for levelling and lowering** the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications specification No KBS 2.1 (a) / 2.3.1 (P.5/I.2.1)								
	Road Cut Portions	Cum							
	3rd Main Road Maruthi Nagara		1	200.00	2.20	0.40	176.00		
			1	240.00	1.50	0.40	144.00		
	Cross Cuttings		30	6.00	0.75	0.40	54.00		
							374.00	166.42	**62241.00**
	Basic Rate	157.00							
	Area Weightage @ 6%	9.42							
	Total	**166.42**							
2	KSRRB M100-1 Loading and Unloading of Stone Boulder / Stone aggregate /sand/kaner/ Moorum KSRRB M100-1 Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications MORTH -100/ Chapter 1 (Page No 133/ Item No 17.1)								
		Cum							
					Qty Vide Item No 2		**374.00**	100.00	**37400.00**
	Average Weight of Earth 1.28 Tonne/Km								
	Basic Rate Lead Charges for 10.00 Kms (2.50X1.28X10.00)	32.00							
	Add loading and unloading Item No 17.1)	68.00							
	Total	**100.00**							
3	**Cleaning the existing black topped surface** with brooms, soft brushes and finally dusting with old gunny bags and /or compressed air to recieve bituminous treatment including cost of all materials, labour, HOM of machineries complete as per Specifications (P No 157 & I No 21.2)								
		Sqm							
	3rd Main Road Maruthi Nagara		1	440.00	6.50		2860.00		
					Deduct Road cut portions		-992.48		
							1867.52	3.18	**5939.00**
	Basic Rate	3.00							
	Area Weightage @ 6%	0.18							
	Total	**3.18**							

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
KSRRB M400-6 1 Construction of granular sub-base by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method Close graded granular sub-base material as per 400-1 For Grading- II Material (P.No.155 It No.20.4.2)								
Road Cut Portions	Cum							
3rd Main Road Maruthi Nagara		1	200.00	2.20	0.15	66.00		
		1	240.00	1.50	0.15	54.00		
Cross Cuttings		30	6.00	0.75	0.15	20.25		
						140.25	1665.26	**233553.00**
Basic Rate	1571.00							
Area Weightage @ 6%	94.26							
Total	**1665.26**							
5 KSRRB M400- Wet Mix Macadam - KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P.No.158 I No.20.18)								
Road Cut Portions	Cum							
3rd Main Road Maruthi Nagara		1	200.00	2.20	0.20	88.00		
		1	240.00	1.50	0.20	72.00		
Cross Cuttings		30	6.00	0.75	0.20	27.00		
Potholes		12	1.20	1.20	0.15	2.59		
		14	1.50	1.20	0.15	3.78		
		15	1.00	1.00	0.15	2.25		
						195.62	1768.08	**345875.00**
Basic Rate	1668.00							
Area Weightage @ 6%	100.08							
Total	**1768.08**							
6 Providing and applying primer coat with ss bitumen emulsion on prepared surface of granular base such as WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502 (P.No.160/It No.21.6)								
Road Cut Portions	Cum							
3rd Main Road Maruthi Nagara		1	200.00	2.20		440.00		
		1	240.00	1.50		360.00		
Cross Cuttings		30	6.00	0.75		135.00		
Potholes		12	1.20	1.20		17.28		

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
		14	1.50	1.20		25.20		
		15	1.00	1.00		15.00		
						992.48	27.56	**27353.00**
Basic Rate	26.00							
Area Weightage @ 6%	1.56							
Total	**27.56**							

7 KSRRB M500- 15 Providing, laying dense graded bituminous macadam using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II (50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No 507 (P No 162&163 It No 21.17.6)

	Cum							
3rd Main Road Maruthi Nagara		1	200.00	2.20	0.050	22.00		
		1	240.00	1.50	0.050	18.00		
Cross Cuttings		30	6.00	0.75	0.050	6.75		
profile correction	10% of Qty Vide Item No 3			186.75	0.050	9.34		
						56.09	6435.26	**360938.00**
Basic Rate	6071.00							
Area Weightage @ 6%	364.26							
Total	**6435.26**							

8 KSRRB 500-7 Providing and **applying tack coat with bitumen emulsion** using 80/100 grade bitumen (VG20) on the prepared black toped suface at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (Excluding cleaning of road surface) including cost of all materials, labour, HOM of Machineries complete as per Specifications (P No 160 & I No 21.7)

	Sqm							
3rd Main Road Maruthi Nagara		1	440.00	6.50		2860.00		
						2860.00	14.84	**42442.00**
Basic Rate	14.00							
Area Weightage @ 6%	0.84							
Total	**14.84**							

9 KSRRB M500- 15 Providing, laying bituminousConcrete using 40/60 THP capacity H.M.P with Mechanical paver Gr-II (30mm to 45mm), crushed aggregates of specified grading premixed with 6% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH Specification clause No 500.9 complete in all respects complete as per specifications MORTH Specification No 509 (P No 164 Item No 21.22.6)

	Cum							
3rd Main Road Maruthi Nagara		1	440.00	6.50	0.040	114.40		

	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
							111.80 / 114.40	7407.72 / 7270.54	828183.00 / 831750.00
	Basic Rate 6859.00								
	Area Weightage @ 8% 548.72 / 541.54								
	Total 7407.72 / 7270.54								
10	KSRRB M800-13. Road marking with hot applied thermoplastic compound with reflect rising glass beads on bituminous surface- providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface to level, uniform and free from streaks and holes complete as per specifications MORTH specification No. 803, No. 1974 (P.No.181 & I.No.24.15)								
		Sqm							
			2	5	430 / 440	0.10	110.00 / 107.50		
							107.50 / 110.00	473.04 / 464.28	50852.00 / 51071.00
	Basic Rate 438.00								
	Area Weightage @ 8 % 35.04 / 26.28								
	Total 473.04 / 464.28								
11	Miscellaneous and unforeseen charges	LS							272.00 / 1488.00
								Grand Total Amount	2000000.00

(Rupees Twenty Lakhs Only)

1) The site has been inspected and the work is found to be necessary
2 The rates adopted are as per PW,P IWTD SR of 2016-17
3) The provisions were made in this estimate are necessary and adequate
4) The area comes under the Bruhat Bengaluru Mahanagara Palike Limits

Assistant Engineer
Ward No.01

Assistant Executive Engineer
Yelahanka Sub-Division
B.B.M.P

Executive Engineer
Yelahanka Division
B.B.M.P

Administrative Sanction for Rs. 20.00 Lacs
Twenty Lakhs only
is accorded under head P.1771 — 2016-17
Registered as CE No. 168 Dt: 16/02/17 Subject to conditions contained in enclosed memo No. CE/AD/168/16-17 Dt.

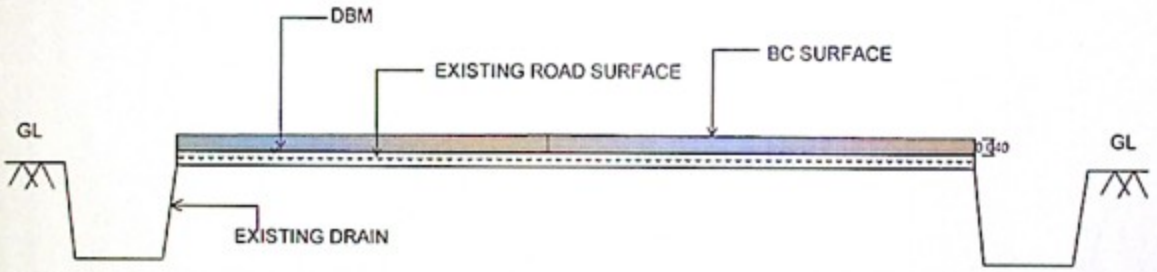
TA

Chief Engineer

TECHNICALLY SANCTIONED FOR Rs. 20.00 Lacs
Rupees Twenty Lacs only
Under P. 1771 - 2016-17
Registered as CE ( ) No 99
Subject to conditions contained in enclosed memo EE ( ) No /91
Dt. EE/TS/45/16-17 Estimate A/ Sanctioned No
Dated 16.2.2017 Rs. 20.00 Lacs

Executive Engineer

NAME OF WORK : IMPROVEMENTS AND ASPHALTING TO ROADS AT MARUTHI NAGARA 3rd MAIN ROAD IN WARD NO.01 OF YELAHANKA SUB-DIVISION



TYPICAL CROSS SECTION OF ASPHALT ROAD

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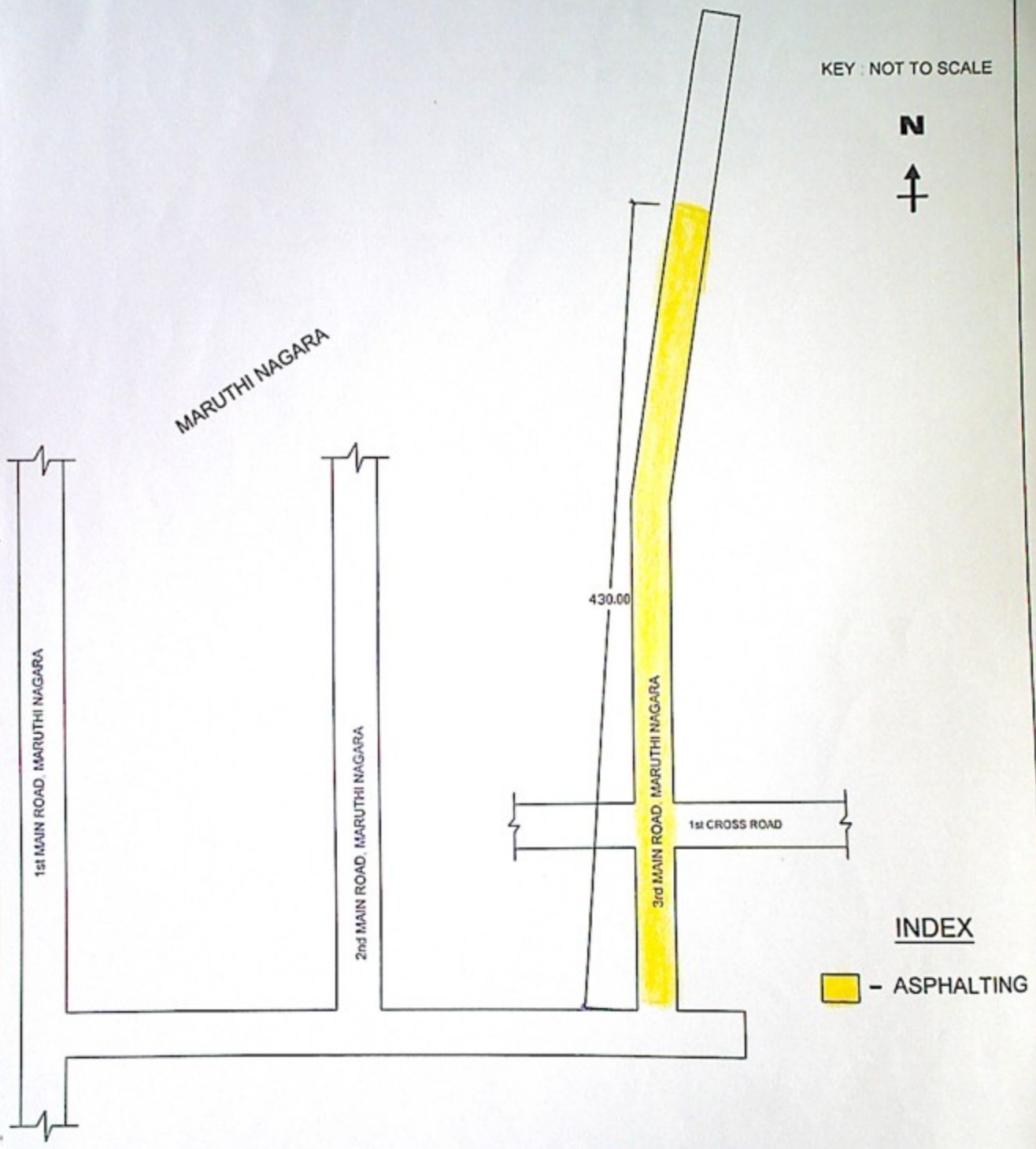
ಯಲಹಂಕ ಉಪ ವಿಭಾಗ, ಬಿ.ಬಿ.ಎಂ.ಪಿ

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

NAME OF WORK: IMPROVEMENTS AND ASPHALTING TO ROADS AT MARUTHI NAGARA 3rd MAIN ROAD IN WARD NO.01 OF YELAHANKA SUB-DIVISION



Assistant Engineer
Ward No.01
B.B.M.P

Assistant Executive Engineer
Yelahanka Sub-Division
B.B.M.P